13.0 PUBLIC SERVICES

This section identifies the various types of public services provided in the project area and assesses the potential impacts to these services from the proposed project. The focus of this section is on those public services most likely affected by the project alternatives. These include law enforcement, fire protection and other emergency services, and domestic and downstream water supplies. The analysis of public services is related to several resource topics addressed in other parts of the EIR/EIS, including the analysis of groundwater and economic resources, presented in Section 4, Groundwater Resources, and Section 12, Economic Resources, respectively.

13.1 Environmental Setting/Affected Environment

This section describes the existing public services conditions in the project area. It identifies public services providers, staffing and other resources, and service levels to the extent that information is available. Although Lake Davis is located in unincorporated Plumas County, other local, State and Federal jurisdictions and agencies may also be potentially affected from a public services standpoint.

13.1.1 Law Enforcement

Law enforcement in the project area is provided jointly by the USFS, DFG, Plumas County Sheriff's Department, and the California Highway Patrol (CHP) depending on the violation. Based on its location in the Plumas National Forest (PNF), public lands surrounding Lake Davis and its facilities (e.g., campgrounds and boat ramps) are subject to patrol by USFS Law Enforcement Officers, who enforce Federal laws and regulations[1] governing National Forest lands and resources. The primary focus of USFS Law Enforcement Officers is the protection of natural resources, as well as the safety of USFS employees and visitors. Currently, USFS has one Patrol Captain and four additional Law Enforcement Officers assigned to the PNF, with one officer having primary patrol responsibilities in the Lake Davis area; additional officers are typically brought into the area in special cases, such as special events (Dillingham, personal communication, 2006).

The role of the DFG in law enforcement in the project area involves the prevention of movement of pike from the reservoir, as well as detection and deterrence of any other Fish and Game Code or other state violations (Howell, personal communication, 2006). The DFG routinely patrols the area and often coordinates with USFS officers regarding joint patrols or operations. The DFG Enforcement Branch has one patrol lieutenant and three Game Wardens assigned to Plumas County.

The Plumas County Sheriff's Department provides supplemental law enforcement services in the project area, primarily on private lands outside the PNF, including the City of Portola. Plumas County does not routinely patrol the roads in the area, but does routinely patrol the water surface at Lake Davis by boat. Countywide, the Sheriff's Department has a patrol force of 32 sworn personnel, including six sergeants and 21 deputies in the patrol division (Plumas County Sheriff's Office 2006). The Sheriff's Office is headquartered in Quincy, with three

[1] The regulations that USFS Law Enforcement Officers enforce include 36 Code of Federal Regulations (CFR) Parts 242 & 261. Part 261 refers to regulations that apply to all National Forest lands nation wide.

substations located throughout Plumas County, including one in the community of Portola, which is staffed with a sergeant and five patrol deputies. In total, the Sheriff's Office handles approximately 14,000 calls for service annually.

The CHP provides law enforcement on state lands, as well as Federal, State and local roadways, and responds to vehicle accidents in the area. The CHP has one sergeant and two officers based out of the City of Portola. Based on the proximity of local law enforcement staff in the City of Portola to the Lake Davis area (about seven miles), the estimated response time for law enforcement calls to the project area is approximately 10 to 20 minutes under the best-case scenario; however, in situations where officers may be occupied in other parts of their patrol areas, response times can be up to two hours (Dillingham, personal communication, 2006). Response times for USFS officers from the Beckwourth Ranger Station vary.

13.1.2 Fire Protection and Emergency Services

Structural fire protection services in the City of Portola and adjacent areas (through mutual aid agreements), including the Lake Davis area, are provided by the Portola Volunteer Fire Department. This department consists of approximately 30 volunteers dispatched out of two fire stations, one on each side of the Middle Fork Feather River. The department maintains an Insurance Services Office (ISO) rating[2] of four (City of Portola 2001, 2006).

Based on Lake Davis' location within the PNF, wildfires also pose an emergency threat in the project area. In fact, the forested areas around Lake Davis are designated as high fire hazard areas in the Plumas County General Plan. The south end of the reservoir is designated as a "Wildland Urban Intermix" by the Plumas County Fire Safe Council (DFG 2005d). Wildfire protection in Plumas County is provided jointly by Plumas County, City of Portola, USFS, and the California Department of Forestry & Fire Protection (CDF). These entities, through the Plumas County Fire Safe Council, have developed the *Plumas Counties Communities Wildfire Mitigation Plan* (Plumas County Fire Safe Council 2005), which is intended to help mitigate potential threats from wildfire. In the Lake Davis area, USFS is the primary responder to wildfires. CDF may assist on wildfire responses on private and public lands in the area, but assistance can be limited due to the fact that there is no CDF station in Plumas County. Response times of local fire protection resources to the Lake Davis area are slightly higher than those of local law enforcement, roughly 20-30 minutes (Howell, personal communication, 2006; Dillingham, personal communication, 2006).

13.1.3 Domestic Water Supplies

The City of Portola provides domestic water service for city residents and a number of residents directly outside the city limits. It also provides water for fire protection. Historically, Lake Davis served as a source of municipal water supply for the City of Portola and the Grizzly Lake Resort Improvement District (GLRID) via contracts with the Plumas

[2] The ISO rating system is a product of the ISO Public Protection Classification program, in which a community's fire protection is graded on a scale of 1-10 based on ISO's Fire Suppression Rating Schedule. Class 1 represents exemplary public protection, and Class 10 indicates that the area's fire-suppression program does not meet ISO's minimum criteria.

County Flood Control and Water Conservation District (PCFCWCD). PCFCWCD, as a State Water Project (SWP) contractor,[3] and DWR[4] executed a long-term water supply contract on December 26, 1963. PCFCWCD may request up to 2,700 acre-feet of Lake Davis water per year as provided in Table A of that agreement.[5] Historically, water from Lake Davis was treated at the Plumas County Water Treatment Plant, which was constructed as part of the SWP around 1970. Domestic use of Lake Davis water was suspended in 1997 due to the chemical treatment of Lake Davis by the DFG. The City of Portola formally indicated its intent to resume diversions for municipal use from Lake Davis in 2002; however, domestic use of water from Lake Davis cannot resume until completion of a new water treatment plant to treat water to current EPA/California DHS drinking water quality standards. Plumas County, working in conjunction with the U.S. Army Corps of Engineers and the City of Portola, is currently in the planning stages for the construction of a new treatment plant. The actual date that the new treatment plant will be operational is unknown at this time, and is dependent on completing project design and the CEQA environmental review process, funding, construction-related parameters (e.g., weather), and approval by California DHS. Based on information provided by representatives from Plumas County, U.S. Army Corps of Engineers and the City of Portola, it is estimated that the treatment plant could be operational as soon as mid-to-late 2007 (Dwyer, personal communication, 2006; Hunter, personal communication, 2006). Due to uncertainties with future water supplies, the City has also explored development of additional water supplies, including new groundwater wells and Golden Springs at Beckwourth Peak, in addition to resumption of the Lake Davis water supply. According to the City of Portola, it is currently drilling a new municipal well, which it hopes will yield 120 gpm (Murphy, personal communication, 2006).

Under existing conditions, the City of Portola domestic water supply comes from a community water system served solely by Willow Creek Springs and two community wells. At Willow Creek Springs, a subterranean water collection system totaling about 160 acres consistently produces approximately 312 gallons per minute, or 503 acre-feet per year (City of Portola 2001). The two city-operated wells (Maintenance Yard Well and Commercial Street Park Well) produce roughly 300 to 325 gallons per minute (gpm) and 600 gpm, respectively (City of Portola 2002).[6] In total, the current source capacity the City of Portola water supply system is estimated to be 1,050 gpm, which is served by a storage system with a capacity of 1,700,000 gallons. Of that total capacity, the City of Portola served 1,173 equivalent dwelling units (EDUs) in 2002, with a domestic source demand of about 745 gpm, indicating that the City of Portola's water supply system had sufficient capacity to meet demand at the time the City's *Water System Master Plan* (2002) was developed. Based on current (2006) conditions, however, existing water supplies in the City of Portola are barely sufficient to meet existing demand. There is no redundancy (or buffer) in the system, which

[3] Lake Davis was established only for recreation and water supply for the City of Portola; it was not established to meet any part of SWP demands south of the Delta (Hunter, personal communication, 2006a).

[4] DWR holds water rights to Lake Davis water via Permit 15254 (Application A0016950) and Permit 15255 (Application A021443).

[5] PCFCWCD has sold a portion of their SWP water allotment to the Grizzly Ranch Development Project; please refer to Section 13.1.4 for more information.

[6] Recent data indicates that the long-term yield of the Maintenance Yard well is approximately 250 gpm and the long-term yield of the Commercial Street Well may be less than 200 gpm during the summer months (City of Portola 2002).

new State regulations require in municipal well supplies (Marsh, personal communication, 2006). If the new municipal well that is being drilled is able to obtain a yield of 120 gpm, that, in combination with existing sources (excluding Lake Davis), would be adequate to supply the City of Portola for another 1.5 to 2 years (Marsh, personal communication, 2006). The city of Portola owns rights to water from four springs on Beckwourth Peak, a yet to be utilized resource capable of producing an additional 170 gpm of drinking water for public use.

Another issue for domestic water supplies, specifically in the context of the existing groundwater system, is water quality, namely arsenic contamination. The old Federal standard arsenic in drinking water was 50 parts per billion (ppb). That standard was recently changed to an average of 10 ppb based on quarterly testing. The City of Portola has not completed all its quarterly tests, but initial results from the first two quarterly tests suggest that arsenic levels exceed 10 ppb in the two community wells (McNamara, personal communication, 2006). The Willow Creek Springs water is unmonitored, but water quality tests have shown that arsenic levels are below detection limits (Whitener, personal communication, 2006). In the past, Willow Creek Springs, alone, could supply all the needs for domestic water; however, that is no longer the case, and blended water (Willow Creek Springs and community wells) is needed. Calculations suggest that blended water will not meet the public health standard for arsenic (Marsh, personal communication, 2006). Because the State has no regulatory authority to enforce Federal water quality requirements, the California Office of Environmental Health Hazard Assessment (OEHHA) is in the process of evaluating the State standard.

There are five smaller public well systems (<200 connections) near Lake Davis and in Big Grizzly Creek canyon below the dam. The Grizzly Lake Resort Improvement District (GLRID) Crocker/Welsh Unit is served by the GLRID well located on Grizzly Road near the Plumas County treatment plant site. This unit of the GLRID used to be served by Lake Davis water as part of its entitlement of 40 acre-feet of water from PCFCWCD. Since the 1997 treatment, GLRID has used a single community groundwater well to serve domestic uses within this service area (located south of Lake Davis). The well, which currently serves about 200 customers, operates at capacity. Accordingly, GLRID currently implements water use restrictions within the service area. As a result, GLRID is not able to accommodate the demand for additional water supplies that would generated by future development of the undeveloped parcels in the service area.

A USFS groundwater well currently serves the Grasshopper Flat and Grizzly campgrounds at Lake Davis. This well is located near the Honker Cove Boat Ramp and pumps water into a 20,000 gallon holding tank, which gravity feeds the campgrounds (DFG 2005d). In addition, the USFS plans to construct a well during summer 2006 to serve Lightning Tree campground.

Other smaller public water systems in the project area include wells maintained by Sleepy Hollow Mobile Home Park, Grizzly Ranch Development Project, and Walton's Grizzly Lodge. Water quality for these smaller public water systems (< 200 connections) is monitored by Plumas County under an arrangement with the California Department of Health Services.

Outside these municipal service areas, domestic water supplies are provided by private groundwater wells. A number of private groundwater wells are located in close proximity to Lake Davis, which could be potentially affected by the proposed treatment and drawdown/refill scenarios; project effects on groundwater supplies are discussed in Section 4, Groundwater Resources.

13.1.4 Downstream Water Supplies

Water is diverted from Big Grizzly Creek downstream of Lake Davis under the provisions of appropriative water rights permits, water supply agreements with the DWR, and claim of riparian rights. Information on the quantity and timing of Lake Davis water releases by the DWR into Big Grizzly Creek can be found in Section 3, Surface Water Resources.

There are four recorded diversions from Big Grizzly Creek and an unknown number of unrecorded riparian diversions. Water supply agreements are administered by the DWR watermaster.

- **Walton's Grizzly Lodge Appropriation** (also known as Grizzly Ice Pond and/or Walton's Grizzly Camp). Walton's Grizzly Lodge is located about four miles downstream of Lake Davis. It operates as a summer youth camp from mid-June to August 25. This diversion and storage of 140 acre-feet of water per year from November 1 to June 1 is allowed under Water Application 16910 (Permit 10730, License 5905). The surface area of the lake is 11 acres.[7] The purpose of use is: recreation, fire protection, stock watering, and domestic use. At the conclusion of their recreational year, the pond is drained via a valve at the base of the dam (Vanscoy, personal communication, 2006).
- **Ramelli Pre-Lake Davis Water Use.**[8] The DWR executed an agreement with the Ramelli interests in 1966 in satisfaction of existing direct diversion rights to Big Grizzly Creek. The agreement provides for the diversion of up to 800 acre-feet per year at a maximum rate of up to seven cfs, although, the present diversion structure will only accommodate a 5.5 cfs diversion. The point of diversion, located at the Grizzly Ice Pond, is currently owned by the USFS, which provides the water under lease agreement to the Green Gulch Ranch. The water is used for pasture irrigation, which serves a 100-head cow-calf operation that is on the property from July to October 30. The pasture is located east of Big Grizzly Creek, between Highway 70 and the Middle Fork Feather River. The historic period of water use is from June through October or until evening air temperature drops to freezing (approximately mid-September).

  The DWR agreed to continue honoring this water right after Lake Davis was constructed. Originally, this water right was held by the Ramelli Family. However, the Ramelli property and associated water right was sold to the USFS and, under a USFS special use permit, the Ramelli family continues use of the land and water.
- **Valberde Pre-Lake Davis Water Use.** The DWR executed an agreement with Andrew Valberde in 1966 in satisfaction of existing rights to divert water from Big Grizzly Creek. The agreement provides for the diversion of up to 135 acre-feet per year. The maximum

[7] Source: DWR 2000 (DWR Bulletin 17-00)
[8] Personal communication by ENTRIX's Steve Pavich with Leslie Pierce (DWR) and Chris Erickson (DWR).

rate of diversion after June 15 is 2.0 cfs, although the present diversion structure will only accommodate a 1.0 cfs diversion.[9] Water is now diverted under the agreement by Mr. David Lake, up to 25 acre-feet per year, and Grizzly Creek Ranch, up to 110 acre-feet per year. The point of diversion is just downstream of the proposed Grizzly Ranch Development Project diversion which is located about 700 feet downstream of the Grizzly Ice Pond. DWR agreed to continue honoring this water right after Lake Davis was constructed.

  - Grizzly Creek Ranch: The Grizzly Creek Ranch is presently a year-round youth camp operated by the Sierra Health Foundation. It is located on the west side of Big Grizzly Creek just upstream of Highway 70. Their primary use of the agreement water is to maintain a small fishing and recreation pond.[10] In 2005, their rate of diversion was 0.1cfs.

  - Mr. David Lake: Mr. David Lake's property is located west of Big Grizzly Creek, just downstream of Highway 70. The construction of Highway 70 restricted Mr. Lake's access to the Valberde Diversion Canal, so he draws water from a small pond on his land, which refills by pumping his 25 acre-feet allotment from the creek through a diversion metered by the DWR Watermaster. His purpose of use is pasture irrigation, although he does not irrigate every year.

- **Grizzly Ranch Development Project.** Grizzly Ranch Development executed an agreement with PCFCWCD for the delivery of up to 250 acre-feet per year via Big Grizzly Creek to be used for golf course irrigation from April 1 through October 31 each year. PCFCWCD has a long-term water supply agreement with DWR for the delivery of SWP water from Lake Davis for municipal use within Plumas County. Under that agreement, PCFCWCD may divert up to 2,700 acre-feet per year in accordance with the quantities specified in Table A of that agreement. The agreement will allow for the release of 0.7 to 1.1 cfs at Lake Davis for diversion by Grizzly Ranch downstream of Grizzly Ice Pond, in addition to the required minimum streamflow releases by DWR. The period of use is May through September, as follows: 0.7 cfs in May, 1.0 cfs in June through August, and 0.7 cfs in September until the evening air temperature drops to freezing. Initial delivery of water may begin in the summer of 2006. DWR has applied to the SWRCB to include the Grizzly Ranch intake as a point of rediversion under its water rights permits in order to accommodate that diversion.

- **Riparian Water Users.**[11] There are several potential riparian water users on Big Grizzly Creek downstream of Lake Davis. A survey of downstream diversions is being conducted to identify and quantify these diversions in order to assess potential impacts.

13.1.5 Other Public Services and Community Infrastructure

The following public services and community infrastructure would not likely be affected by the Proposed Project and alternatives. However, they are presented briefly to provide a comprehensive understanding of the local public service system.

[9] Per personal communication, Ralph Howell (DWR)
[10] Per personal communication, Ann Perez, Sierra Health Foundation.
[11] Personal communication with Doug Rischbieter (DWR).

13.1.5.1 Sewer and Wastewater Treatment

City of Portola provides sewer collection and treatment for local residents. Private septic systems provide sewage disposal outside the city's service area. For the Grizzly Ranch Development Project, construction of an effluent outfall line should begin summer 2006. Following completion, Grizzly Ranch will discharge treated effluent to Big Grizzly Creek during the wet season.

13.1.5.2 Solid Waste

Solid waste collection at Lake Davis facilities is provided by Intermountain Disposal, which serves the City of Portola and surrounding areas. Solid waste is hauled to a local transfer station in the town of Delleker and then is hauled to a landfill in Nevada. The existing landfill in the Portola area is in the process of being closed, and the city is in the process of consolidating solid waste disposal needs into the Plumas County system.

13.1.5.3 Road Maintenance

The public works departments of the City of Portola and Plumas County provide maintenance and repair of the city and county road system, respectively. The California Department of Transportation (Caltrans), District 2, maintains state highways in the region.

13.1.5.4 Utilities

Main utility services consist of telephone and electrical power. Telephone service in Plumas County is available from one of two providers: Pacific Bell (serving Quincy and the eastern part of Plumas County) and Citizens Utilities (serving northern Plumas County). Cellular phone service is only available in the population centers. Sierra Pacific Power Company (SPPC) provides electric power to the project area, as well as the City Portola. SPPC maintains an electrical substation in Portola. Power is distributed throughout the Portola area primarily in a system of overhead power lines typically along public streets.

13.1.5.5 Other Public Services

Other public services and facilities available in the local project area include wastewater collection and treatment, storm drainage, education, libraries, recreation and parks, and general government.

13.1.6 Regulatory Environment

There are no regulations directly applicable to public services. Regulations regarding surface water rights are discussed in Section 17. The provision of public services is typically addressed in the local government planning, e.g., city/county general plans. In the context of the proposed pike eradication project at Lake Davis, the most pertinent planning documents include:

- **City of Portola General Plan - Public Services and Facilities Element (2001)**. This element of the City of Portola General Plan addresses a wide range of public services,

including water, sewer, major drainage, electricity, solid waste, schools, libraries, recreation and parks, police, fire protection, and community services and general government. It is organized into a number of goals, policies, and implementation measures for each of these services. There is one implementation measure directly related to Lake Davis:

  - **PF-I-5**. The city will continue to identify and secure water supplies from ground water sources, and consider utilization of Lake Davis water.

- **City of Portola Water System Master Plan, 2002-2022 (2002)**. This document represents the master plan for the water system serving the City of Portola. The Master Plan satisfies the intent of California Code 66000 et seq. as it relates to the establishment of a Capital Improvement Plan. It specifically addresses the use of Lake Davis as a future source of domestic water supply.

13.2 Environmental Impacts and Consequences

This section describes the environmental impacts/consequences of the project alternatives in the context of public services. The criteria used to assess impacts and the methodology used in the analysis is presented below. The impact analysis covers direct and indirect impacts organized by project alternative; cumulative impacts are discussed in Section 13.2.10. This section concludes with a summary of environmental impacts and mitigation commitments by the DFG.

13.2.1 Evaluation Criteria and Environmental Concerns

The main environmental concerns related to public services are whether the Proposed Project alternatives would adversely affect service levels in the project area and/or require the construction of new facilities to meet projected public service demands. Based on the characteristics of the project, the public services analysis focuses on four main areas: (1) law enforcement, (2) fire protection and emergency services, (3) domestic water supply, and (4) downstream water uses.

In the context of domestic water supplies, note that the analysis of physical effects to groundwater resources is presented in Section 4 of this EIR/EIS. The analysis of domestic water supplies builds on groundwater analysis to the extent that groundwater wells used by the public would be affected.

An assessment of the significance of potential public service impacts is presented in the following analysis. For the purposes of this analysis, and based on the CEQA Guidelines and professional judgment, the following criteria are used to measure the significance of impacts on public services: Whether the project would:

- Increase the short- or long-term demand for public services or response times in excess of existing and projected capacities for such services, thereby adversely affecting existing service levels; or
- Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause

significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any public service.

13.2.2 Evaluation Methods and Assumptions

The analysis of public services is based on the projected service requirements of the Proposed Project and the alternatives, including temporary closure of portions of the PNF, and the manner in which these requirements may be met by existing service providers and facilities. One key consideration in the public services analysis is the effect of the project on domestic water supplies. This analysis is dependent on the future availability of Lake Davis as a domestic water supply source, which in turn is dependent on the feasibility and timing of the proposed new Plumas County Water Treatment Plant. For the purposes of this analysis, it is assumed that the treatment plant will be operational and authorized for domestic use by the California Department of Health Services (DHS) by September 2007.

13.2.3 No Project/No Action

13.2.3.1 Impacts on Law Enforcement

Under the No Project/No Action alternative, law enforcement services in the project area would continue to be provided by existing service providers. Potential impacts on law enforcement would be limited to services provided by the DFG. If the pike remain in Lake Davis, the DFG would likely need to increase the number of law enforcement personnel assigned in the area (including permanent assignments) in an attempt to keep anglers from transporting pike to other locations. In addition, the DFG may need to conduct directed enforcement efforts, such as checkpoints, on a regular basis. Without additional personnel, this could adversely affect the DFG's ability to respond to calls for service and to provide general patrols within Plumas County. In addition, the DFG may need to supplement existing law enforcement efforts with wardens from outside the area, which in turn, may impact patrol efforts throughout the State. Even though the DFG service demands may increase under the No Project/No Action alternative, the need to construct new public service facilities is not anticipated.

From the perspective of recreation-related demands on law enforcement, if the pike are not eradicated, existing recreation use levels at Lake Davis are expected to decline in the future in response to adverse effects on the Lake Davis trout fishery. This would generally result in lower demands for visitor-related public services (primarily law enforcement) in the project area.

In summary, the No Project/No Action alternative could adversely affect law enforcement services in the project area by increasing the demand for DFG law enforcement personnel to address potential transport of pike from the reservoir. Without additional staffing, law enforcement service levels in the local area may decline. In addition, DFG law enforcement services statewide may also be adversely affected if resources need to be shifted to the project area. On the other hand, the demand for visitor-related public services, including law enforcement, may decline over time in response to declining recreation levels. Overall,

potential impacts on law enforcement services are adverse and significant under the No Project/No Action alternative.

13.2.3.2 Impacts on Fire Protection and Other Emergency Services

The No Project/No Action alternative would not adversely affect fire protection services or facilities in the project area; in fact, the demand for visitor-related public services, including fire protection, medical aid and search and rescue, may decline over time. No impact would occur.

13.2.3.3 Impacts on Solid Waste Disposal

Under the No Project/No Action alternative, there would be no increase in the amount of solid waste generated in the Lake Davis area. As a result, there would be no increase in the demand for solid waste disposal services and no added burden on local disposal facilities and landfills. The No Project/No Action alternative would not adversely affect solid waste disposal services or facilities in the project area. No impact would occur.

13.2.3.4 Impacts on Domestic Public Water Supply

In the context of domestic water supplies, the No Project/No Action alternative would not affect the future availability of Lake Davis water to serve the domestic water needs of the City of Portola and GLRID service area. Based on testing of Lake Davis water and reservoir bed sediment, there are currently no remaining constituents of the previous 1997 pike treatment that would prohibit use of Lake Davis water as a domestic water source under the No Project/No Action alternative (Lake Davis Steering Committee 2002). The driving factor of whether Lake Davis water can be used by the City of Portola is the completion of a new Plumas County Water Treatment Plant that meets EPA/California DHS drinking water standards. Based on current schedule, rebuilding of the water treatment plant is anticipated to be completed in mid-to-late 2007 (Dwyer, personal communication, 2006; Hunter, personal communication, 2006). Until that time, it is expected that Portola and GRLID would continue to provide municipal water supplies via their existing community groundwater wells and springs, which are currently operating at or near capacity, in conjunction with the new community well under construction.

In summary, the No Project/No Action alternative would not have an adverse impact on the ability of the City of Portola or GLRID to continue using groundwater as a domestic water supply source. Further, this alternative would not impact the future use of Lake Davis water for domestic purposes, which is dependent on completion of the new Plumas County Water Treatment Plant. No impact would occur.

13.2.3.5 Impacts on Downstream Water Supplies

Under the No Project/No Action alternative, where there would be no change in operation of Lake Davis, average downstream water releases would not change relative to existing conditions. Therefore, it is likely that there would be no change in the quantity of water available for downstream water uses.

However, the continued presence of pike in Lake Davis and related potential for pike escapement and human transport under the No Project/No Action alternative could adversely affect downstream water supplies. Current management strategies developed in response to the presence of pike in Lake Davis involve operating the reservoir at lower levels relative to historical conditions in an effort to avoid dam spillover and pike escapement. Currently, the reservoir is operated to maintain reservoir levels at approximately 56,300 acre-feet on average (see Section 3.1.1.1), while reservoir capacity is about 84,000 acre-feet. DWR's Northern Pike Containment System will be in place in the fall of 2006, and will prevent all life stages of fish from escaping through the outlet releases. However, DWR's Containment System will not prevent the escape of pike over the spillway or prevent people from transplanting pike to other water bodies.

In the event that pike were to become established beyond Lake Oroville (in the Sacramento-San Joaquin Delta), a range of potential actions could affect water supplies statewide. First, the presence of pike in the Delta could adversely affect sensitive species, such as the Delta smelt and Chinook salmon, which are also affected by Delta water exports. As a result, there is the potential that DWR and USBR would reconsult on the biological opinion for the operation of the SWP/CVP, and Delta water exports could be reduced as a management response to protect the Delta smelt and Chinook salmon. Further, fishery agencies could request that water exports be reduced as a management response to limit the potential transport of pike beyond the Delta in the CVP/SWP delivery systems. Other water diverters that draw water directly from the Delta could also face restrictions on water use. In fact, all diversions from the Sacramento/San Joaquin River Basins could be potentially affected. Under any of these scenarios, reduced water exports would result in a significant adverse water supply impact throughout the State for both agricultural and M&I water customers. However, it is not possible to predict the timing and magnitude of these potential water supply effects if they were to occur.[12]

In summary, in the absence of pike escapement, the No Project/No Action alternative would not result in a change in the availability of water downstream from Grizzly Valley Dam relative to existing conditions. However, there is the likely situation that continued presence of pike would result in pike escapement, and their establishment in the Delta. Potential management responses to the presence of pike in the Delta would likely entail reductions in Delta water exports, resulting in potentially significant and adverse water supply effects throughout the State.

13.2.4 Proposed Project/Proposed Action – 15,000 Acre-Feet Plus Treatment

13.2.4.1 Impacts on Law Enforcement

Potential impacts on law enforcement services resulting from implementation of all of the project alternatives, including the Proposed Project/Proposed Action, are tied to projected

[12] Potential statewide economic effects from water supply reductions are addressed in the statewide economic analysis presented in Appendix I. Because of the lack of data, the statewide analysis used hypothetical scenarios of water supply reductions.

recreation use levels (over the short- and long terms) and the proposed PNF closure orders (in the short term).

Under the Proposed Project/Proposed Action, recreation use levels are expected to decrease in the short term based on reductions in reservoir availability, and then increase over time due to long-term improvements in the recreation fisheries at Lake Davis, assuming the pike are successfully eradicated (refer to Section 11, Recreation Resources, for more information). Generally, an increase (or decrease) in recreation visitation would increase (or decrease) the demand for recreation-related law enforcement services in the project area, particularly law enforcement patrols and responses to illegal activity by visitors. As such, demands for recreation-related law enforcement services would decline during the treatment/neutralization and refill periods, and no related adverse public service impact would occur. However, over the long term, projected increases in recreation visitation levels at Lake Davis under the Proposed Project/Proposed Action could increase law enforcement demands relative to future No Project conditions; however, these projected recreation levels are not expected to exceed historical levels. According the estimates of projected recreation use developed as part of this EIR/EIS (see Section 11), recreation levels under this alternative will peak at approximately 110,000 annual visitors over the next 20 years, which is substantially lower than historic visitation levels. Specifically, projected peak recreation levels are about 43 to 63 percent of recreation use levels in the mid 1990s, which ranged between 175,000 visitors (in 1997) and 258,300 visitors (in 1994), as reported in DWR Bulletin 132, *Management of the California State Water Project*. Based on these data, recreation-related law enforcement demands are not expected to exceed available service capacity of the Plumas County Sheriff's Department or USFS Law Enforcement Officers over the long term.

There are two independent proposed Forest Closures associated with the Proposed Project/Proposed Action (and other project alternatives) that could affect the demand for law enforcement services provided by USFS staff. Forest Closure #1 is intended to protect archeological resources in the exposed reservoir bed by restricting public access to the reservoir bed below the 45,000 acre-foot shoreline level. This closure would be in effect as long as the reservoir capacity was below 45,000 acre feet, which for the Proposed Project/Proposed Action is expected to range from about 5 to 10 months to drawdown the reservoir to 15,000 acre-feet, though it could take longer in very wet years. In addition, Lake Davis could take another 5 to 79 months (median of 8 months) to refill to the 45,000 acre-foot level after the treatment. Restrictions on public access would need to be enforced, primarily by USFS personnel, and, therefore, would result in an increase in public service demands. According to this proposed closure, however, USFS law enforcement personnel are already accustomed to implementing the no-vehicle access forest closure in the area and the extension of prohibiting foot traffic into the exposed lake bed would not be a great deviation from current enforcement practices. In addition, USFS enforcement activities would be supplemented by DFG and Plumas County law enforcement staff.

The other proposed forest closure (Forest Closure #2) is intended to protect human health and safety during chemical treatment of the reservoir by regulating public access during the storage, transportation and application of the rotenone. The proposed restrictions would close the Lake Davis area, including a number of access roads, developed campgrounds, and other designated areas, to vehicle and foot traffic as long as rotenone is present. There are a

number of exceptions to this proposed closure, including allowing access for emergency response vehicles, thereby ensuring law enforcement and fire protection services would remain available to local residents. The closure would take effect the day before rotenone arrives, by truck, at the storage site and would continue to remain in effect as long as rotenone was on site or in use, approximately 25 to 30 days, before a phased-in opening of restricted areas (USFS 2006). Similar to Closure #1, this closure would require substantial enforcement activities, necessitating interagency law enforcement coordination between the USFS, Plumas County Sheriff's Department, DFG, and CHP to ensure consistent and accurate implementation of the closure order. Existing law enforcement staff and facilities of USFS, DFG, CHP and Plumas County are expected to be able to meet the anticipated increases in law enforcement demands, and if needed, the USFS, CHP and DFG can bring in additional law enforcement personnel from outside the area.

Impact PS-1: Because existing law enforcement services levels would not be substantially diminished and there would be no need to construct additional law enforcement facilities to serve the project, potential adverse impacts to law enforcement services resulting from changes in recreation levels and the proposed Forest Closure Orders would be less than significant under the Proposed Project/Proposed Action.

Mitigation PS-1: No mitigation measures are required or recommended.

13.2.4.2 Impacts on Fire Protection and Emergency Services

Generally, impacts on fire protection and emergency services would be similar to law enforcement impacts described above. Under the Proposed Project/Proposed Action, a short-term decrease in recreation use in the Lake Davis area during the treatment/neutralization and refill periods would result in reduced wildfire risk due to the decline in human activity in the project area, thereby potentially reducing the demand for wildfire response provided by CDF and other wildfire responders. Over the long term, subsequent increases in recreation levels in response to successful pike eradication efforts could mean a slightly higher risk of fire events and emergency situations relative to existing conditions due to increased human activity in the project area. However, long-term recreation use is not expected to exceed historical levels during which existing fire protection and emergency services functioned adequately.

During the treatment/neutralization period, the transport and use of hazardous chemicals temporarily increases the risk of emergency events requiring response from emergency service providers, mainly the Portola Volunteer Fire Department. Transportation and application of the rotenone formulations would be restricted to developed roads and boat ramps, the reservoir, and the tributaries.. The DFG has prepared a spill contingency plan, which is part of all of the project alternatives, to address and minimize the risk of unforeseen emergency events during project implementation (Section 2.3.5). Key elements of the plan include: description of rotenone and permanganate products to be used; transportation of products; location of materials storage; time period of materials storage; precautions for preventing spills; spill containment; and site security. Further, the plan provides specific background information, as well as staffing and procedures to prevent and, if necessary, contain and treat an accidental spill. Training in spill contingency planning and procedures

would be conducted at the appropriate staff levels, and the plan would be discussed and coordinated with appropriate staff in other agencies.

Impact PS-2: Under the Proposed Project/Proposed Action, there would be a slight increase in the potential for emergency events during the period that rotenone would be present in the project area. However, this risk would be temporary and minimized by a spill contingency plan; further, existing emergency service providers are expected to be able to respond to such events. Over the long term, anticipated recreation use levels in the project area are not expected to overburden existing fire and emergency service providers, which are expected to meet recreation-related demands for these types of services. Overall, adverse impacts on fire protection and emergency services are considered less than significant.

Mitigation PS-2: No mitigation measures are required. A spill contingency plan has been incorporated into the treatment component of the project alternatives.

13.2.4.3 Impacts on Solid Waste Disposal

Implementation of proposed pike eradication efforts under the Proposed Project/Proposed Action would generate approximately 100 tons of dead fish during the treatment period, which would require proper collection and disposal. If a pike eradication project is approved, the DFG will complete a plan for the removal and disposal of dead fish (see Section 2.3.6). Dead fish floating on the surface of the reservoir and along the shoreline would be collected by the DFG by boat and hand crews and disposed of at an approved landfill or other approved site. The DFG would coordinate with the appropriate agencies (e.g., county and state health departments) regarding the fish disposal, and would obtain any necessary permits or approvals before the fish are collected and/or taken to the disposal site.

Impact PS-3: Under the Proposed Project/Proposed Action, dead fish from the proposed treatment would be disposed of at an approved facility and all necessary approvals and permits would be acquired prior to disposal. This impact is considered less than significant.

Mitigation PS-3: No mitigation measures are required or recommended.

13.2.4.4 Impacts on Domestic Public Water Supplies

As described above, the City of Portola is currently served by community groundwater wells and does not use Lake Davis water as a source of domestic water supplies due to existing deficiencies in the Plumas County Water Treatment Plant, which is not currently operational. Future availability of Lake Davis for domestic water supplies depends primarily on the construction and approval of a new treatment plant and a surface water elevation at Lake Davis of 5,750 feet (16,276 acre feet), the minimum required for treatment plant operation.

Under all of the project alternatives, including the Proposed Project/Proposed Action, the City of Portola would continue to use springs and groundwater to provide domestic public water supplies to local residents until the time the new treatment plant is operational. Similarly, GLRID would continue use of its community groundwater well. Because both the City of Portola's and GLRID's existing public water supply systems are at/near capacity,

these entities will need to actively manage their municipal water supplies to meet domestic requirements until additional water supplies are developed, including a new municipal well (in the case of the City of Portola) and/or use of Lake Davis water.

Under the Proposed Project, implementation of chemical treatment would be initiated in mid-August to late October 2007 and the treatment neutralization period could last up to 45 days. The Proposed Project could temporarily delay the use of Lake Davis water as a domestic water supply source if the following occurred: (1) the new treatment plant is constructed and approved by DHS prior to the application of rotenone, and (2) water deliveries to the new treatment plant are restricted until water in Lake Davis is approved as a drinking water source by DHS. Additional delays in using Lake Davis water could occur as a result of the anticipated refill period. Drawdown of Lake Davis under this alternative (to approximately 5,749 feet elevation) could temporarily result in water elevations that are approximately one foot below the threshold level identified for the treatment plant to operate using the middle intake valve. The hydrologic modeling conducted for this project indicates that the reservoir would reach the minimum required water elevation of 5,750 feet within about 4 months on average, though it could take from 1 to 18 months. Under either scenario, the City of Portola could be required to rely on its existing groundwater system longer than would be the case without the project. Depending on the yield of the City of Portola's new groundwater well, the City may be limited in its ability to provide sufficient water supplies to meet future domestic water demands during the period that the treatment plant is not operational. Similarly, the delay in the use of Lake Davis water supplies could also temporarily limit development within the GLRID service area due to the lack of water supplies. The project may also result in prolonged use of the City of Portola's public water system, which is currently subject to arsenic levels that exceed new Federal standards; future arsenic levels in the community water supply system are dependent on the quality of water from the new municipal well under construction.

The direct effect of the proposed project on the City of Portola's groundwater wells, as well as other public wells, must also be considered. The proposed treatment is not expected to have an adverse effect on Portola's community groundwater wells, in terms of water supply or quality, because these wells draw from a geochemically distinct aquifer from the reservoir. In addition, water levels and quality in the GLRID well would not be affected by the Proposed Project as described in Section 4 (Groundwater). Water quality and quantity in the other public wells near Lake Davis and in the Big Grizzly Creek Canyon, would not be affected significantly by the Proposed Project/Proposed Action. Please refer to Section 4, Groundwater Resources, for more information on the physical effects of the project on groundwater wells.

Impact PS-4: There is the potential for the Proposed Project to delay use of Lake Davis as a domestic water supply source for the City of Portola and GRLID by delaying water deliveries to the new water treatment plant, depending on when the water treatment plant is constructed and approved for use. This could result in both entities having to remain on their community groundwater systems for a longer period of time than they would without the project. Based on the capacity of these systems, there may not be sufficient water supplies in City of Portola and the GLRID service area to meet water demands during the 4-month period corresponding to project implementation

(treatment and refill to 5,750 acre feet). Further, the City of Portola could have to continue use of its community groundwater system, which currently exceeds Federal standards for arsenic. These temporary adverse impacts are significant but mitigable.

Mitigation PS-4: If implementation of the project results in delays to the City of Portola and GLRID to use Lake Davis as a municipal water supply source, the following mitigation options will be implemented:

- The DFG shall, in coordination with the City of Portola and GLRID, temporarily provide replacement water supplies to community residents if needed until water from Lake Davis is available for domestic use. Options may include trucking in water, construction of additional storage facilities, developing groundwater wells, or provide funding to the City of Portola to install an advanced filtration system on existing community groundwater wells to lower arsenic levels below Federal standards.

Significance After Mitigation: With implementation of this mitigation measure, this impact would be reduced to less than significant.

13.2.4.5 Impacts on Downstream Water Supplies

Relative to average flows under existing conditions, implementation of the Proposed Project/Proposed Action would involve an increase in water releases from Grizzly Valley Dam during drawdown of the reservoir and a decrease in water releases during the treatment and neutralization period. From a water supply perspective, increases in water releases would not affect downstream water right holders and related uses because water would remain available for diversion, particularly during most of the summer months when irrigation demands are the highest.[13] However, decreased water releases and related stream flows would affect the quantity of available water supplies downstream from the dam. Under the Proposed Project/Proposed Action, reductions in downstream water supplies would occur only during the treatment and neutralization period when flows would be reduced to between approximately 0.15 to 5 cfs depending on neutralization option. During this period, which is expected to last up to 45 days, there would be less water available for downstream water right holders and related uses. Potential impacts to specific water right holders are outlined below.

- **Ramelli Diversion.** Based on the existing capacity of the Ramelli Diversion (5.5 cfs) and historical diversion patterns (average of 3.0 cfs), the Ramelli Diversion is expected to generate a demand for approximately 270 acre-feet of water during the 45-day treatment/neutralization period. Under some neutralization options, insufficient water would be available to accommodate water demands related to the Ramelli Diversion. Temporary adverse water supply impacts could occur.
- **Valberde Diversion.** Based on the existing capacity of the Valberde diversion (1.0 cfs), the Valberde Diversion could draw up to approximately 90 acre-feet of water during the 45-day treatment/neutralization period. However, based on the 2005 use pattern (0.1 cfs), water use could be as low as 9 acre-feet. Under some neutralization options, insufficient

[13] Related effects of increased outflows from Grizzly Valley Dam on downstream water users, such as erosion and recreation concerns, are covered in other Sections 3 and 11 of the document, respectively.

water would be available to accommodate water demands related to the Valberde Diversion. Temporary adverse water supply impacts could occur.

- **Grizzly Ranch Development Project.** Based on its entitlement, the Grizzly Ranch Development Project could draw up to roughly 71 acre-feet of water during the 45-day treatment/neutralization period. Temporary adverse water supply impacts could occur under some neutralization options. Preliminary coordination with the Grizzly Ranch Development Project suggests that the development may temporarily use groundwater wells for its water supply during the treatment and neutralization period. If this does not occur, temporary adverse water supply impacts could occur.
- **Riparian Users.** There are several potential riparian water users on Big Grizzly Creek downstream of Lake Davis. A survey of downstream diversions is being conducted to determine and quantify these diversions in order to assess potential impacts. Temporary adverse water supply impacts could occur.

Water rights associated with Walton's Grizzly Ice Pond would not be adversely affected because water storage provisions under this right last through June 1 and the stream flows would not be curtailed under the project until mid-August at the earliest. Therefore, up to about 140 acre-feet water would be stored at Grizzly Ice Pond, less evaporation and sedimentation in the pond, at the time the proposed treatment commences. Stream flows into Grizzly Ice Pond that exceed its 140 acre-feet storage capacity would be released downstream; there are no required releases from the Grizzly Ice Pond when there are no stream inflows.

Once the neutralization period is over and the rotenone has dissipated, it is anticipated that water flows from the dam during refill would resume at 10 cfs. At this flow, adequate water supplies would be available to downstream water users. No long-term adverse water supply impacts are anticipated.

Impact PS-5: On a temporary basis, downstream water users would be adversely affected during treatment and neutralization period as a result of reduced water flows from Grizzly Valley Dam under the Proposed Project/Proposed Action. This represents a significant, but mitigable, adverse water supply impact.

Mitigation PS-5: The following measures will be implemented to minimize impacts on downstream water right holders and related uses:

- The DFG shall survey Big Grizzly Creek (downstream from the dam) to identify all riparian diversions potentially affected by the project. All identified water users, including riparian and appropriated right holders, will be contacted by the DFG/DWR prior to the proposed treatment to determine the nature and amount of water diversions. In addition, all landowners downstream of Lake Davis and adjacent to Big Grizzly Creek will be informed about the proposed pike eradication effort;
- The DFG will enter into an agreement with the DWR to provide assurance that downstream parties are provided with water they are entitled to under any agreements with the DWR, and the DWR is not liable for impacts as a result of nonperformance under those water supply agreements; and

- The DFG shall, in coordination with the land holders, temporarily provide alternative water sources to all water users along Big Grizzly Creek to meet existing water demands. Options may include providing trucked water to riparian users or assisting with private well pumping costs.
- In cooperation with water right holders at or downstream from Grizzly Ice Pond, the DFG shall provide mitigation on a case-by-case basis based on the parameters of each diversion and related land uses. Options may include:
  - Investigating the option of securing water supplies stored at Grizzly Ice Pond to help meet the requirements of downstream water right holders; however, the quantity of water stored at the Ice Pond would not likely be sufficient to meet all downstream requirements. Therefore, additional provisions will be made as needed, as described below;
  - Ramelli Diversion. Temporarily provide water and/or a water equivalent to Ramelli pastures consistent with the terms of the USFS grazing permit. Options include: (1) providing partial replacement water supplies; (2) providing an alternative green pasture if available; and/or (3) providing hay and/or other supplemental feed to address the loss in pasture irrigation;
  - Valberde Diversion. Temporarily accommodate for lost water supplies. Options include: (1) providing partial replacement water supplies via stored water at Grizzly Ice Pond if the DFG can arrange such an agreement with the Grizzly Ice Pond water right holders; and/or (2) trucking in water;
  - Grizzly Ranch Development Project. Temporarily accommodate the Grizzly Ranch Development Project for lost water supplies. Options include: (1) providing partial replacement water supplies via stored water at Grizzly Ice Pond if the DFG can arrange such an agreement with the Grizzly Ice Pond water right holders; and/or (2) covering the costs of pumping well water from existing wells on the Grizzly Ranch property.

Significance After Mitigation: With implementation of these mitigation measures, this impact would be reduced to less than significant.

13.2.5 Alternative A – 15,000 Acre-Feet (Including Powder)

Under Alternative A, project impacts on law enforcement, fire protection and other emergency services, domestic water supplies, and downstream water uses would be essentially the same as under the Proposed Project/Proposed Action. No notable differences in the public service impacts of the project would occur due to the use of powdered (versus liquid) rotenone. Please refer to Section 13.2.4 for a complete description of these public service impacts.

Impact PS-6: Alternative A would have a less than significant adverse impact on law enforcement services. Please refer to Impact PS-1.

Mitigation PS-6: No mitigation measures are required.

Impact PS-7: Alternative A would have a less than significant adverse impact on fire protection and other emergency services. Please refer to Impact PS-2.

Mitigation PS-7: No mitigation measures are required.

Impact PS-8: Alternative A would have a less than significant adverse impact on solid waste disposal. Please refer to Impact PS-3.

Mitigation PS-8: No mitigation measures are required.

Impact PS-9: Alternative A would have a significant, but mitigable, adverse impact on domestic public water supplies. Please refer to Impact PS-4.

Mitigation PS-9: Mitigation proposed under Alternative A would be the same as that proposed under the Proposed Project/Proposed Action. Please refer to Mitigation PS-4.

Significance After Mitigation: With implementation of this mitigation measure, these impacts would be reduced to less than significant.

Impact PS-10: Alternative A would have a significant, but mitigable, adverse impact on downstream water supplies and related uses. Please refer to Impact PS-5.

Mitigation PS-10: Mitigation proposed under Alternative A would be the same as that proposed under the Proposed Project/Proposed Action. Please refer to Mitigation PS-5.

Significance After Mitigation: With implementation of this mitigation measure, these impacts would be reduced to less than significant level.

13.2.6 Alternative B – 5,000 Acre-Feet Plus Treatment

13.2.6.1 Impacts on Law Enforcement

Under Alternative B, impacts on law enforcement would be generally comparable to those described for the Proposed Project/Proposed Action (see Section 13.2.4), with the notable differences being that it could take longer for the reservoir to drawdown and refill. A longer drawdown and refill period would extend the duration of Forest Closure #1 and the period during which recreation opportunities at the reservoir would be limited. Under Alternative B, it is estimated that it would take approximately 8 to 10 months to drawdown (although there is a lower probability of reaching this level, compared to the Proposed Project/Proposed Action) and 6 to 80 months to refill. As a result, law enforcement services needed to enforce Forest Closure #1 would be required for a slightly longer period. Conversely, recreation levels would remain lower for a longer period while the reservoir is being drawn down and refilled, thereby reducing short-term demands for visitor-related law enforcement services. There are no differences in the expected duration of Forest Closure #2, and therefore, no differences in related law enforcement impacts.

Impact PS-11: Because existing law enforcement services levels would not be substantially diminished and there would be no need to construct additional law enforcement facilities to serve the project, potential adverse impacts to law enforcement services resulting from changes in recreation levels and the proposed Forest Closure Orders would be less than significant under Alternative B.

Mitigation PS-11: No mitigation measures are required.

13.2.6.2 Impacts on Fire Protection and Emergency Services

Alternative B would result in impacts on fire protection and emergency services that are comparable to those described for the Proposed Project/Proposed Action (see Section 13.2.4), the only distinction being differences in short-term recreation use levels that could affect potential wildfire risk. In the short term, relatively lower recreation levels would be expected under Alternative B due to decreased availability of the reservoir during drawdown and refill, thereby resulting in fewer demands by visitors for fire protection and emergency services. There would be no difference in the nature or duration of treatment techniques, and therefore no difference in the risk of hazardous materials-related emergency service events.

Impact PS-12: There is a slight increase in the potential for emergency events during the period that rotenone is present in the project area. However, this risk would be temporary, and existing emergency service providers are expected to be able to respond to such events. Over the long term, existing service providers are expected to meet recreation-related demands for fire and other emergency services. Therefore, adverse impacts on fire protection and emergency services are considered less than significant under Alternative B.

Mitigation PS-12: No mitigation measures are required.

13.2.6.3 Impacts on Solid Waste Disposal

Under Alternative B, impacts on solid waste disposal services would be the same as those described for the Proposed Project/Proposed Action (see Section 13.2.4).

Impact PS-13: Under Alternative B, dead fish from the proposed treatment will be disposed of at an approved facility and all necessary approvals and permits will be acquired prior to disposal. This impact is considered less than significant.

Mitigation PS-13: No mitigation measures are required.

13.2.6.4 Impacts on Domestic Public Water Supplies

Under Alternative B, impacts on domestic water supplies would be similar, but more severe, to those described above for the Proposed Project/Proposed Action (see Section 13.2.4). None of the public wells in the project area would be directly affected by the project; however, the project could temporarily affect the future availability of Lake Davis for domestic water supplies, which depends primarily on construction and approval of a new treatment plant and a surface water elevation at Lake Davis of 5,750 feet (16,276 acre feet), the minimum required for treatment plant operation. Specifically, short-term reservoir levels during the refill period could affect the ability of the treatment plant to operate.

Under Alternative B, implementation of a chemical treatment would be from mid-August to October 2007 and the neutralization period could last up to 45 days. Alternative B could temporarily delay the use of Lake Davis water as a domestic water supply source if the following occurred: (1) the new treatment plant is constructed and approved by DHS prior to

the application of rotenone, and (2) water deliveries from Lake Davis are delayed until water in Lake Davis is approved as a drinking water source by DHS. Additional delays in using Lake Davis water could occur as a result of the anticipated refill period. Under Alternative B, the reservoir would be drawn down to 5,000 acre-feet (5,738 feet elevation), which is about 12 feet below of the minimum reservoir surface elevation required for operation of the treatment plant (5,750 feet elevation). Until the rotenone treatment and neutralization period is complete (up to 45 days) and the reservoir refills to this minimum threshold (which is expected to take about 11 months, on average, but could be as little as two months or as much as 42 months under drought conditions), the City of Portola and GLRID would not be able use Lake Davis as a source of domestic water supplies, although domestic water supplies would still be available via community groundwater systems that would be unaffected in these areas. However, the existing community groundwater systems operated by the City of Portola and GLRID are at or near capacity. Depending on the yield of the City's new groundwater well, the City of Portola may not be able to accommodate projected future water demands during the period that the treatment plant is not in operation. Similarly, the delay in the use of Lake Davis water supplies would also temporarily restrict development within GLRID's service area. These effects become more severe under the scenario where operation of the treatment plant gets delayed up to 42 months. In addition, the project may result in prolonged use of the City of Portola's public water system, which may be subject to arsenic levels that exceed Federal standards depending on the quality of water from the new municipal well.

Impact PS-14: There is the potential for Alternative B to delay use of Lake Davis as a domestic water supply source for the City of Portola and GRLID by delaying water deliveries to the new water treatment plant, depending on when the water treatment plant is constructed and approved for use. This could result in both entities having to remain on their community groundwater systems for a longer period of time than they would without Alternative B. Based on the capacity of these systems, there may not be sufficient water supplies in the City of Portola and the GLRID service area to meet water demands during an 11-month period corresponding to project implementation (treatment and refill to 5,750 feet). Further, the City of Portola could have to continue use of its community groundwater system, which currently exceeds Federal standards for arsenic. These temporary adverse impacts are significant but mitigable.

Mitigation PS-14: Mitigation proposed under Alternative B would be the same as that proposed under the Proposed Project/Proposed Action. Please refer to Mitigation PS-4.

Significance After Mitigation: With implementation of this mitigation measure, this impact would be reduced to less than significant.

13.2.6.5 Impacts on Downstream Water Supplies

Under Alternative B, impacts on downstream water uses would be similar to those described for the Proposed Project/Proposed Action (see Section 13.2.4). These impacts are associated only with the treatment and neutralization period where flows would be temporarily reduced to 0.15 to 5 cfs across all of the proposed neutralization options, thereby temporarily limiting the quantity of water available to downstream water users and related uses; this represents an

adverse impact of Alternative B. Sufficient flows would be available during the refill period to accommodate downstream water requirements.

Impact PS-15: On a temporary basis, downstream water uses could potentially be adversely affected during treatment and neutralization period as a result of reduced water flows from Grizzly Valley Dam under Alternative B. This represents a significant, but mitigable, adverse water supply impact.

Mitigation PS-15: Mitigation proposed under Alternative B would be the same as that proposed under the Proposed Project/Proposed Action. Please refer to Mitigation PS-5.

Significance After Mitigation: With implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

13.2.7 Alternative C – 35,000 Acre-Feet Plus Treatment

13.2.7.1 Impacts on Law Enforcement

Law enforcement impacts under Alternative C are expected to be generally comparable to those described for the Proposed Project/Proposed Action (see Section 13.2.4). However, drawdown and refill of the reservoir would not take as long under Alternative C, thereby reducing the time that Forest Closure #1 is in effect. Under this alternative, it is estimated that it would take approximately 6 to 10 months to drawdown (same as the Proposed Project/Proposed Action, although with a higher probability) and 2 to 79 months to refill. As a result, law enforcement services needed to enforce Forest Closure #1 may be required for a shorter period of time, thereby reducing law enforcement demands. On the other hand, recreation levels are expected to be relatively higher in the short term under this alternative due to increased availability of the reservoir, thereby increasing short-term demands for visitor-related law enforcement services, but not beyond levels that can served by existing service providers. There are no differences in the expected duration of Forest Closure #2; therefore, there are no differences in related law enforcement demands.

Impact PS-16: Because existing law enforcement services levels would not be substantially diminished and there would be no need to construct additional law enforcement facilities to serve the project, potential adverse impacts to law enforcement services resulting from changes in recreation levels and the proposed Forest Closure Orders would be less than significant under Alternative C.

Mitigation PS-16: No mitigation measures are required.

13.2.7.2 Impacts on Fire Protection and Emergency Services

Impacts on fire protection and emergency services for Alternative C would be similar to those described for the Proposed Project/Proposed Action (see Section 13.2.4), the only distinction being differences in short-term recreation use levels that could affect potential wildfire risk. In the short term, recreation use levels are expected to be relatively higher due to increased availability of the reservoir during drawdown and refill, thereby resulting in potentially higher demands for fire protection and emergency services. There would be no

difference in the nature or duration of treatment techniques, and therefore no difference in the risk of hazardous materials-related emergency service events.

Impact PS-17: There is a slight increase in the potential for emergency events during the period that rotenone is present in the project area. However, this risk would be temporary and existing emergency service providers are expected to be able to respond to such events. Over the long term, existing service providers are expected to meet recreation-related demands for fire and other emergency services. Therefore, adverse impacts on fire protection and emergency services are considered less than significant under Alternative C.

Mitigation PS-17: No mitigation measures are required.

13.2.7.3 Impacts on Solid Waste Disposal

Under Alternative C, impacts on solid waste disposal services would be the same as those described for the Proposed Project/Proposed Action (see Section 13.2.4).

Impact PS-18: Under Alternative C, dead fish from the proposed treatment will be disposed of at an approved facility and all necessary approvals and permits will be acquired prior to disposal. This impact is considered less than significant.

Mitigation PS-18: No mitigation measures are required.

13.2.7.4 Impacts on Domestic Public Water Supplies

Impacts on domestic public water supplies under Alternative C would be similar, but less severe, as those described above for the Proposed Project/Proposed Action (see Section 13.2.4) because these impacts would be relatively shorter term based on anticipated drawdown and refill of the reservoir under this alternative. None of the public wells in the project area would be directly affected by the project; however, the project could affect the future availability of Lake Davis for domestic water supplies, which depends primarily on construction and approval of a new treatment plant and a surface water elevation at Lake Davis of 5,750 feet (16,276 acre feet), the minimum required for treatment plant operation. Because reservoir levels would only be drawn down to 35,000 acre-feet (5,760 feet elevation) under Alternative C, short-term reservoir levels would not affect the ability of the treatment plant to operate. However, it is assumed that during the treatment and neutralization period (up to 45 days), the City of Portola and GLRID would not be able use Lake Davis as a domestic water supply source. During this temporary 45-day period, domestic water supplies would still be available via the City of Portola's and GLRID's community groundwater systems, which would not be directly affected by the project, but do exceed Federal standards for arsenic (in the case of the City of Portola system).

Impact PS-19: There is the potential for this Alternative C to delay future use of Lake Davis as a domestic water supply source for the City of Portola and GRLID by delaying water deliveries to the new water treatment plant. This could result in both entities having to remain on their community groundwater systems for a longer period of time than they would without Alternative C. Based on the capacity of these systems, there may not be sufficient water supplies in the City of Portola and the GLRID service area

to meet the demand during the 45-day treatment and neutralization period. Further, the City of Portola could have to continue use of its community groundwater system, which currently exceeds Federal standards for arsenic. These temporary adverse impacts are significant but mitigable.

Mitigation PS-19: Mitigation proposed under Alternative C would be the same as that proposed under the Proposed Project/Proposed Action. Please refer to Mitigation PS-4.

Significance After Mitigation: With implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

13.2.7.5 Impacts on Downstream Water Supplies

Under Alternative C, impacts on downstream water supplies would be similar to those described for the Proposed Project/Proposed Action (see Section 13.2.4). These impacts are associated only with the treatment and neutralization period where flows would be reduced to 0.15 to 5 cfs across all of the neutralization options, thereby temporarily limiting the quantity of water available to downstream water users and related uses; this represents an adverse impact of Alternative C. Sufficient flows would be available during the refill period to accommodate downstream uses.

Impact PS-20: On a temporary basis, downstream water users would potentially be adversely affected during treatment and neutralization period under Alternative C as a result of reduced water flows from Grizzly Valley Dam. This represents a significant, but mitigable, adverse water supply impact.

Mitigation PS-20: Mitigation proposed under Alternative C would be the same as that proposed under the Proposed Project/Proposed Action. Please refer to Mitigation PS-5.

Significance After Mitigation: With implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

13.2.8 Alternative D – 48,000 Acre-Feet Plus Treatment

13.2.8.1 Impacts on Law Enforcement

Unlike the other project alternatives, law enforcement impacts under Alternative D would not be related to the drawdown and refill of Lake Davis. Under Alternative D, the volume of the reservoir would not fall below the 45,000 acre-feet threshold required to implement Forest Closure #1, and no adverse effects on recreation use levels are expected beyond the treatment/neutralization period. Because Forest Closure #1 would not be implemented, there would be no related increase in demand on law enforcement services attributed to enforcement activities. Recreation levels would not be substantially affected in the short term (except during the treatment and neutralization period) due to the fact that there would be no restrictions on recreation access above the 45,000 acre-feet threshold. Therefore, there would be no substantial change in demand for recreation-related law enforcement services compared to existing conditions. In addition, there are no differences in the expected duration of Forest Closure #2 under this alternative; therefore, no differences in related law enforcement demands are anticipated.

Impact PS-21: Because existing law enforcement services levels would not be substantially diminished and there would be no need to construct additional law enforcement facilities to serve the project, potential adverse impacts to law enforcement services resulting from changes in recreation levels during treatment and the proposed Forest Closure #2 would be less than significant under Alternative D.

Mitigation PS-21: No mitigation measures are required.

13.2.8.2 Impacts on Fire Protection and Emergency Services

Implementation of Alternative D would result in impacts on fire protection and emergency services that are comparable to those described for the Proposed Project/Proposed Action (see Section 13.2.4), with the exception of differences in short-term recreation use levels that could affect potential wildfire risk. Alternative D is expected to result in relatively higher recreation levels in the short term because the reservoir would not be drawn below the threshold level for recreational access (45,000 acre-feet); with more recreation activity, there would be a potentially higher demand for fire protection and emergency services in the short term compared to the Proposed Project/Proposed Action. There would be no difference in the nature or duration of treatment techniques, and therefore no difference in the risk of hazardous materials-related emergency service events.

Impact PS-22. There is a slight increase in the potential for emergency events during the period that rotenone is present in the project area. However, this risk would be temporary and existing emergency service providers are expected to be able to respond to such events. Over the long term, existing service providers are expected to meet recreation-related demands for fire and other emergency services. Therefore, adverse impacts on fire protection and emergency services are considered less than significant under Alternative D.

Mitigation PS-22: No mitigation measures are required.

13.2.8.3 Impacts on Solid Waste Disposal

Under Alternative D, impacts on solid waste disposal services would be the same as those described for the Proposed Project/Proposed Action (see Section 13.2.4).

Impact PS-23: Under Alternative D, dead fish from the proposed treatment will be disposed of at an approved facility and all necessary approvals and permits will be acquired prior to disposal. This impact is considered less than significant.

Mitigation PS-23: No mitigation measures are required.

13.2.8.4 Impacts on Domestic Public Water Supplies

Under Alternative D, impacts on domestic public water supplies would be similar, but less severe, to those described above for the Proposed Project/Proposed Action (see Section 13.2.4) because these impacts would be relatively shorter term based on the lack of drawdown and refill of the reservoir under this alternative. None of the public wells in the project area would be directly affected by the project; however, the project could affect the

future availability of Lake Davis for domestic water supplies, which depends primarily on construction and approval of a new treatment plant and a surface water elevation at Lake Davis of 5,750 feet (16,276 acre feet), the minimum required for treatment plant operation. Because reservoir levels would be at 48,000 acre-feet (5,764 feet elevation) under Alternative D, short-term reservoir levels would not affect the ability of the plant to operate. However, it is assumed that during the treatment and neutralization period (up to 45 days), the City of Portola and GLRID would not be able use Lake Davis as a domestic water supply source. Domestic water supplies would still be available via the City of Portola's and GLRID's community groundwater systems, which would not be directly affected by the project, but do exceed Federal standards for arsenic (in the case of the City of Portola system)..

Impact PS-24: There is the potential for Alternative D to delay future use of Lake Davis as a domestic water supply source for the City of Portola and GRLID by delaying deliveries of water t the new water treatment plant. This could result in both entities having to remain on their community groundwater systems for a longer period of time than they would without Alternative D. Based on the capacity of these systems, there may not be sufficient water supplies in the City of Portola and the GLRID service area to meet the demand during this 45-day treatment and neutralization period. Further, the City of Portola could have to continue use of its community groundwater system, which currently exceeds Federal standards for arsenic. These temporary adverse impacts are significant but mitigable.

Mitigation PS-24: Mitigation proposed under Alternative D would be the same as that proposed under the Proposed Project/Proposed Action. Please refer to Mitigation PS-4.

Significance After Mitigation: With implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

13.2.8.5 Impacts on Downstream Water Supplies

Impacts on downstream water supplies under Alternative D would be similar to those described for the Proposed Project/Proposed Action (see Section 13.2.4). These impacts are associated only with the treatment and neutralization period where flows would be reduced to 0.15 to 5 cfs across all of the neutralization options, thereby temporarily limiting the quantity of water available to downstream water users and related uses, an adverse impact of Alternative D. Sufficient flows would be available during the refill period to accommodate downstream uses.

Impact PS-25: On a temporary basis, downstream water users would potentially be affected during treatment and neutralization period under Alternative D as a result of reduced water flows from Grizzly Valley Dam. This represents a significant, but mitigable, adverse water supply impact.

Mitigation PS-25: Mitigation proposed under Alternative D would be the same as that proposed under the Proposed Project/Proposed Action. Please refer to Mitigation PS-5.

Significance After Mitigation: With implementation of this mitigation measure, this impact would be reduced to a less than significant level.

13.2.9 Alternative E – Dewater Reservoir and Tributaries (No Chemical Treatment)

13.2.9.1 Impacts on Law Enforcement

Under Alternative E, impacts on law enforcement would be generally comparable to those described for the Proposed Project/Proposed Action (see Section 13.2.4), with the exception that it would take longer for the reservoir to drawdown and refill, which would extend the duration of Forest Closure #1 and anticipated reductions in short-term recreation levels. Under Alternative E, it is estimated that it would take approximately 8 to 10 months to drawdown the reservoir (although it could take much longer). Without pumping there is only a 55 percent chance of emptying the reservoir by October 1. With pumping this likelihood increases to 76 percent. In the remaining years, the reservoir would not be emptied within the first year. The reservoir would take 6 to 80 months to refill; accordingly, law enforcement services related to the forest closure would be required for a longer period of time. However, recreation levels would remain lower for a longer duration while the reservoir is being drawn down and refilled, thereby reducing short-term demands for visitor-related law enforcement services. Forest Closure #2 also applies under Alternative E.

Impact PS-26: Because existing law enforcement services levels would not be substantially diminished and there would be no need to construct additional law enforcement facilities to serve the project, potential adverse impacts to law enforcement services resulting from changes in recreation levels and the proposed Forest Closure Orders would be less than significant under Alternative E.

Mitigation PS-26: No mitigation measures are required.

13.2.9.2 Impacts on Fire Protection and Emergency Services

Under Alternative E, recreation-related impacts on fire protection and emergency services would be comparable to those described for the Proposed Project/Proposed Action (see Section 13.2.4), with the exception of differences in short-term recreation use levels that could affect potential wildfire risk. In the short term, Alternative E is expected to result in the greatest adverse impact on recreation use levels due to decreased availability of the reservoir during drawdown and refill, thereby resulting fewer visitor-related demands for fire protection and emergency services. Unlike the Proposed Project/Proposed Action, there would be no chemical treatment or neutralization period; therefore there would be no transport and use of hazardous chemicals to temporarily increase the risk of emergency events requiring response from emergency service providers, mainly the Portola Volunteer Fire Department.

Impact PS-27: There would be no use of rotenone in the project area; therefore, there would be no increased risk for existing emergency service providers from this source. However, there are more pumps and generators, and there is a slight increase in the potential for emergency events during the pumping events. However, this risk would be temporary and existing emergency service providers are expected to be able to respond to such events. Over the long term, existing service providers are expected to meet recreation-related demands for fire and other emergency services. Therefore, adverse

impacts on fire protection and emergency services are considered less than significant under Alternative E.

Mitigation PS-27: No mitigation measures are required.

13.2.9.3 Impacts on Solid Waste Disposal

Under Alternative E, impacts on solid waste disposal services would be the same as those described for the Proposed Project/Proposed Action (see Section 13.2.4).

Impact PS-28: Under Alternative E, dead fish from the proposed treatment will be disposed of at an approved facility and all necessary approvals and permits will be acquired prior to disposal. This impact is considered less than significant.

Mitigation PS-28: No mitigation measures are required.

13.2.9.4 Impacts on Public Domestic Water Supplies

Under Alternative E, impacts on public domestic water supplies would be similar, but more severe, relative to those described above for the Proposed Project/Proposed Action (see Section 13.2.4). None of the public wells in the project area would be directly affected by this alternative; however, the project could affect the future availability of domestic water supplies from Lake Davis, which is dependent primarily on construction and approval of a new treatment plant and a surface water elevation at Lake Davis of 5,750 feet (16,276 acre feet), the minimum required for treatment plant operation. Because there would be no chemical treatment under this alternative, the limiting factor in resuming water supplies from Lake Davis would be short-term reservoir levels during the refill period, which could affect the ability of the treatment plant to operate.

Based on the timing of the proposed dewatering of the reservoir, which is expected to begin in January 2007 under this alternative, the project could temporarily delay the use of Lake Davis water as a domestic water supply source if the following occurred: (1) the new treatment plant is constructed and approved by DHS prior to dewatering the reservoir, (2) water deliveries to the new treatment plant are delayed until water in Lake Davis is approved as a drinking water source by DHS, and (3) water deliveries are delayed until the reservoir refills to the level of the intake pipe for the treatment plant.

Under Alternative E, the reservoir would be completely dewatered (5,700 feet elevation), which is about 50 feet below the minimum reservoir surface elevation required for operation of the treatment plant (5,750 feet elevation). Until the dewatering process is complete and the reservoir refills to this minimum threshold (which would take about 12 months, on average, and up to 42 months under drought conditions), the City of Portola and GLRID would not be able use Lake Davis as a source of domestic water supplies. Domestic water supplies would still be available via the City of Portola's and GLRID's existing community groundwater systems, which would not be directly affected by the project. However, the existing community groundwater systems in the City of Portola and the GLRID service area are at or near capacity. Depending on the yield of the City's new groundwater well, the City of Portola may not be able to accommodate projected future water demands during the period that the treatment plant is not in operation. Similarly, the delay in use of Lake Davis water

supplies would also temporarily restrict development with the GLRID service area. These effects become more severe under the scenario where the operation of the treatment plant gets delayed up to 42 months. In addition, the project may result in continued use of the City of Portola's public water system, which is subject to arsenic levels that exceed Federal standards depending on the quality of water from the new municipal well.

In addition, under Alternative E, there would be direct and significant impacts to groundwater wells near Lake Davis due to dewatering of the reservoir. Dewatering would not affect public wells operated by the City of Portola or GRLID, but it could affect the USFS public well at Honker Cove. This is identified as a significant impact in the groundwater analysis; please refer to Section 4, Groundwater Resources.

Impact PS-29: There is the potential for Alternative E to delay use of Lake Davis as a domestic water supply source for the City of Portola and GRLID by delaying water deliveries of the new water treatment plant. This could result in both entities having to remain on their community groundwater systems for a longer period of time than without Alternative E. Based on the capacity of these systems, there may not be sufficient water supplies in the City of Portola and the GLRID service area to meet water demands during this 12-month period corresponding to refill of the reservoir to 5,750 feet. Further, the City of Portola could have to continue use of its community groundwater system, which currently exceeds Federal standards for arsenic. These temporary adverse impacts are significant but mitigable.

Mitigation PS-29: Mitigation proposed under Alternative E would be the same as that proposed under the Proposed Project/Proposed Action. Please refer to Mitigation PS-4.

Significance After Mitigation: With implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

13.2.9.5 Impacts on Downstream Water Supplies

Under Alternative E, impacts on downstream water supplies would be similar to those described for the Proposed Project/Proposed Action (see Section 13.2.4). However, under this alternative, downstream water supply impacts are associated only with the anticipated refill period because no treatment and neutralization would occur under this alternative. Because the reservoir would be dewatered, there would be a lag period during refill where water would not be available for release, thereby resulting in greater (longer) impacts on downstream water supplies relative to the other action alternatives. Once enough water collects in the reservoir during the refill period to begin minimum flow releases from the valve at the bottom of the dam, water supplies would be available for downstream uses and instream flow requirements, and these adverse effects would cease. By temporarily limiting the quantity of water available to downstream water users and related uses, Alternative E would result in adverse water supply impacts.

Impact PS-30: On a temporary basis, downstream water users could potentially be affected during treatment and neutralization period under Alternative E as a result of reduced water flows from Grizzly Valley Dam. This represents a significant, but mitigable, adverse water supply impact.

Mitigation PS-30: Mitigation proposed under Alternative E would be the same as that proposed under the Proposed Project/Proposed Action. Please refer to Mitigation PS-5.

Significance After Mitigation: With implementation of this mitigation measure, this impact would be reduced to a less than significant level.

13.2.10 Cumulative Impacts

The analysis of cumulative public service impacts is based on the contribution of project effects, in conjunction with effects of past, present and reasonably foreseeable actions, on the various types of public services considered in this EIS/EIR. The public services most likely affected by the proposed pike eradication project are: law enforcement, fire protection and other emergency services, and domestic and downstream water supplies. The cumulative analysis focuses on the action alternatives only.

13.2.10.1 Definition of Analysis Area

The geographic area used in the analysis of cumulative public service impacts focus on the City of Portola area, and to a lesser extent Plumas County. The City of Portola was selected as the primary cumulative analysis area because it encompasses most of the public services potentially affected by the project alternatives.

13.2.10.2 List of Projects Considered in the Cumulative Impacts Analysis

The analysis of cumulative public service impacts focuses on those projects that could generate a demand for or otherwise affect public services in the project area. These projects are:

- DWR Containment Project MND/IS
- City of Portola well-drilling
- City of Portola Treatment Plant
- Grizzly Ranch Development Project

13.2.10.3 Cumulative Impacts for the Proposed Action

Cumulative Impacts on Law Enforcement, Fire Protection and Other Emergency Services

Under the Proposed Project/Proposed Action, as well as the other project alternatives, the proposed pike eradication project is anticipated to temporarily increase public service demands in the short-term during the drawdown, treatment, and refill period. In addition, the project is expected to increase recreation use over time, thereby generating an increase in the long-term demand for visitor-driven law enforcement, fire protection, and other emergency services. However, because the anticipated increases in public service demands are not expected to exceed service capacities, nor result in the need to construct new public service facilities, these impacts are considered less than significant. In the context of cumulative

impacts, other projects that could have an effect of these same types of public services must be considered. Most of cumulative projects in the region would not generate a demand for these same types of services because they would not attract visitors or induce population growth in the area. One project, the Grizzly Ranch Development Project, would draw new residents into the region over the long term, thereby generating demands for law enforcement, fire protection, and other emergency services. The public service demands of this project would be much greater than those of the proposed pike eradication project; however, as with most planned development projects, the Grizzly Ranch Development Project is expected to generate public revenues through property taxes and special assessments to help fund these essential public services. This includes annexation to the local fire protection district (Beckwourth FFD). As a residential development, the Grizzly Ranch Development Project would not induce a substantial increase in wildfire risk, which is one of the potential impacts of the proposed pike eradication project. Overall, implementation of the Proposed Project/Proposed Action or any of the other action alternatives would not have a cumulatively considerable impact on law enforcement, fire protection and other emergency services.

Cumulative Impacts on Solid Waste Disposal

Under the Proposed Action and other project alternatives, dead fish would need to be disposed of at an approved landfill or alternate site. This would generate a short-term demand for solid waste disposal services in the area of the selected disposal site. None of the cumulative projects considered here are expected to generate a substantial demand for solid waste disposal services at the time the pike treatment would be implemented. Therefore, implementation of the Proposed Project/Proposed Action or any of the other action alternatives would not have a cumulatively considerable impact on solid waste disposal.

Cumulative Impacts on Domestic Public Water Supplies

The impacts of the pike eradication project on domestic water supplies are based on the possible delay in Portola's ability to use Lake Davis as a domestic water supply source. There are no other projects that would have a cumulatively considerable impact on the resumption of Lake Davis as a source of domestic water supplies.

Cumulative Impacts on Downstream Water Supplies

Under the Proposed Project/Proposed Action, as well as the other project alternatives, water supplies downstream from Grizzly Valley Dam could be temporarily affected during the treatment and neutralization period when releases would be limited to 0.15-5 cfs. During this period, downstream water users could be without the water necessary to accommodate permitted uses in accordance with their water rights. This significant impact would be reduced to less-than-significant level with implementation of mitigation that the DFG provide alternative water supplies to affected downstream users (if needed). None of the cumulative projects considered here would affect the level of water releases from Lake Davis. In fact, one of these projects, the Grizzly Ranch Development Project, is a downstream water user that depends on releases from Lake Davis for irrigation purposes.

Grizzly Ranch's use of water would not affect other downstream users because it purchased its water rights from Plumas County's existing annual water allotment. In addition, the Grizzly Ranch Development Project may improve downstream water supplies through discharges of irrigation runoff into Big Grizzly Creek. Overall, because none of the cumulative projects would affect the availability of surface water supplies to downstream users, and the effects of the project would be mitigated with alternative supplies, no adverse cumulative impacts would occur.

13.2.10.4 Cumulative Impacts for Alternative A

The cumulative public service impacts of Alternative A would be the same as those described for the Proposed Project/Proposed Action (see Section 13.2.10.3)

13.2.10.5 Cumulative Impacts for Alternative B

The cumulative public service impacts of Alternative B would be the same as those described for the Proposed Project/Proposed Action (see Section 13.2.10.3)

13.2.10.6 Cumulative Impacts for Alternative C

The cumulative public service impacts of Alternative C would be the same as those described for the Proposed Project/Proposed Action (see Section 13.2.10.3)

13.2.10.7 Cumulative Impacts for Alternative D

The cumulative public service impacts of Alternative D would be the same as those described for the Proposed Project/Proposed Action (see Section 13.2.10.3)

13.2.10.8 Cumulative Impacts for Alternative E

The cumulative public service impacts of Alternative E would be the same as those described for the Proposed Project/Proposed Action (see Section 13.2.10.3)

13.2.11 Environmental Impacts Summary

A summary of environmental impacts related to public services is presented in Table 13.2-1 below. All of the public services impacts are less than significant with the exception of the impacts to domestic water supplies and downstream water supplies for all project alternatives. For these concerns, the impacts are significant, but mitigable.

Table 13.2-1. Summary Comparison of Impacts of Alternatives

Affected Resource and Area of Potential Impact	Alternative						
	No Project Compared to Existing Conditions	Proposed Action	A	B	C	D	E
Public Services							
1. Law Enforcement	SU,A	LS,A	LS,A	LS,A	LS,A	LS,A	LS,A
2. Fire Protection and Other Emergency Services	N	LS,A	LS,A	LS,A	LS,A	LS,A	LS,A
3. Solid Waste Disposal	N	LS, A	LS, A	LS, A	LS, A	LS, A	LS,A
4. Domestic Public Water Supplies	N	SM,A	SM,A	SM,A	SM,A	SM,A	SM,A
5. Downstream Water Supplies	SU,A	SM,A	SM,A	SM,A	SM,A	SM,A	SM,A

Key:

A = Adverse Impact (NEPA)
B = Beneficial Impact (NEPA)
LS = Less than Significant Impact (CEQA)
N = No Impact (CEQA, NEPA)
SM = Significant but Mitigatable Impact (CEQA)
SU = Significant and Unavoidable Impact (CEQA)

13.2.12 Monitoring

No monitoring activity is proposed for public services impacts. See Section 4.2.12 for a discussion of groundwater level and groundwater quality monitoring of private wells in the vicinity of Lake Davis.